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#### NOTICE OF ALLOWANCE AND FEE(S) DUE

22850 7590 11/26/2008

OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA. VA 22314 EXAMINER
TESKIN, FRED M

PAPER NUMBER

ART UNIT

DATE MAILED: 11/26/2008

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/575,109	12/12/2006	Ryo Aburatani	289571US0PCT	9363

TITLE OF INVENTION: HIGHER OLEFIN POLYMER HAVING POLAR GROUP AND PROCESS FOR PRODUCING THE SAME

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	02/26/2009

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

#### HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FFE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

#### PART B - FEE(S) TRANSMITTAL

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INSTRUCTIONS: This appropriate. All further indicated unless correct maintenance fee notifica	form should be used : correspondence includi ed below or directed of tions.	for tran	smitting the ISSU Patent, advance of in Block 1, by (a					ould be completed where correspondence address as ate "FEE ADDRESS" for
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								(Depositor's name)
								(Signature)
								(Date)
APPLICATION NO.	FILING DATE			FIRST NAMED INVENTO	R	ATTO	RNEY DOCKET NO.	CONFIRMATION NO.
10/575,109 TITLE OF INVENTION	12/12/2006 HIGHER OLEFIN PO	LYME	R HAVING POLA	Ryo Aburatani aR GROUP AND PROC	ESS FOR PRODUC		289571USOPCT HE SAME	9363
APPLN, TYPE	SMALL ENTITY	IS	SUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSU	E FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO		\$1510	\$300	\$0		\$1810	02/26/2009
EXAM	IINER		ART UNIT	CLASS-SUBCLASS				
TESKIN,	FRED M		1796	525-333700	_			
Address form PTO/SI  "Fee Address" ind PTO/SB/47; Rev 03-6 Number is required.  3. ASSIGNEE NAME A PLEASE NOTE: Un	ondence address (or Cha 3/122) attached. ication (or "Fee Address 22 or more recent) attack ND RESIDENCE DAT. less an assignee is ident h in 37 CFR 3.11. Com	ange of  "Indicated. Use  A TO Be  tified be	Correspondence  ation form of a Customer  E PRINTED ON 2	2. For printing on the (1) the names of up- or agents OR, alterna (2) the name of a sin- registered attorney or 2 registered patent at listed, no name will b FHE PATENT (print or t data will appear on the T a substitute for filing a (B) RESIDENCE: (CTI	o 3 registered pater ively, le firm (having as a agent) and the nam orneys or agents. If e printed.  ype) patent. If an assign assignment.	n memb es of u no nan	pp to pp to ac is 3	cument has been filed for
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☐ Issue Fee ☐ Publication Fee (No small entity discount permitted) ☐ Advance Order - # of Coples				A check is enclosed.  Payment by credit card. Form PTO-2038 is attached.  The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number (enclose an extra copy of this form).				
- 11	s SMALL ENTITY stat	us. See	37 CFR I.27.	b. Applicant is no lo				
NOTE: The Issue Fee an interest as shown by the	u rublication ree (if req records of the United St	ates Pat	ent and Trademark	Office.	ше аррисант, а гед	istered .	auomey or agent; or the	assignee or other party in
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OBLON, SPIVA	K, MCCLELLAND	TESKIN, FRED M			
1940 DUKE STR		ART UNIT	PAPER NUMBER		
ALEXANDRIA,	VA 22314	1796			

## Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 121 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 121 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

### Application No. Applicant(s) 10/575,109 ABURATANI ET AL. Notice of Allowability Examiner Art Unit Fred M. Teskin 1796 -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308. This communication is responsive to AMENDMENT FILED SEPTEMBER 12, 2008. The allowed claim(s) is/are 1-20. 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). b) ☐ Some\* c) ☐ None of the: 1. T Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. \( \overline{\text{ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)). \* Certified copies not received: \_\_\_\_\_. Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. 4. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient. CORRECTED DRAWINGS (as "replacement sheets") must be submitted. (a) Including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached 1) hereto or 2) to Paper No./Mail Date (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d). 6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL. Attachment(s) 1. | Notice of References Cited (PTO-892) 5. Notice of Informal Patent Application 2. Notice of Draftperson's Patent Drawing Review (PTO-948) Interview Summary (PTO-413), Paper No./Mail Date Information Disclosure Statements (PTO/SB/08). 7. X Examiner's Amendment/Comment Paper No./Mail Date 4. T Examiner's Comment Regarding Requirement for Deposit 8. X Examiner's Statement of Reasons for Allowance of Biological Material 9. ☐ Other . /Fred M Teskin/

Primary Examiner, Art Unit 1796

### **Examiner's Amendment**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

Claim 10, penultimate line: ---compound-- has been inserted after "halogen".

Claim 13, first line: --halogen-- has been inserted after "and/or".

### **Examiner's Comment**

The above examiner's amendment is provided to conform claim 10 to the antecedent disclosure (reciting halogen compound, see Specification at page 3, first full paragraph) and to render claim 13 consistent with its parent claim (which recites halogen groups; cf., claim 10, line 1).

## Reasons for Allowance

The following is an examiner's statement of reasons for allowance:

Claims 1-20 are allowable over the closest prior art cited in the Search Report, as neither JP 8-504476 (equivalent of US 5567344 and US 5663129) nor WO 03/002659 (corresponding to US 7019080) teaches or adequately suggests subjecting to an

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incorporation reaction of a polar compound or halogen compound into a higher α-olefin polymer satisfying the requirement (2) of the present invention. In regard to this requirement, the cited documents are silent as to presence of side chain crystallization in any of the α-olefin polymers described therein. And while the catalysts used for polymerization in JP '476 and WO '659 may comprise metallocenes which are biscyclopentadienyl derivatives, the metallocene compounds disclosed are in every instance either unbridged or crosslinked with a single divalent bridging group (see, e.g., US '129 at col. 11, lines 35+ and US '080 at col. 4, line 30 to col. 6, line 50). By contrast, the higher  $\alpha$ -olefin polymer used in the present invention is prepared by means of a catalyst containing a transition metal compound having two divalent crosslinking groups (e.g., A<sup>1</sup> and A<sup>2</sup> of formula (I) in claim 20). Use of a transition metal compound having such a double crosslinked structure to prepare a higher α-olefin polymer is nowhere proposed in the cited documents. Given the difference in transition metal compound used as catalyst for polymerizing the higher α-olefin, no basis is seen to justify an inference that the requirement (2) of the claimed invention is inherently met by either of the cited documents. Accordingly, claims 1-20 are deemed to define allowable subject matter and passed to issue.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner F. M. Teskin whose telephone number is (571) 272-1116. The examiner can normally be reached on Monday through Thursday from 7:00 AM - 4:30 PM, and can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached on (571) 272-1114. The appropriate fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <a href="http://pair-direct.uspto.gov">http://pair-direct.uspto.gov</a>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Fred M Teskin/ Primary Examiner, Art Unit 1796

FMTeskin/11-17-08